

Claims

1. A method for suppressing latch-ups occurring in a circuit, wherein, in a current-limited supply voltage, an undervoltage is detected, the supply voltage is switched off following the detection of a latch-up, and charge located in the circuit is reduced, **characterized in** that the charge existing in the circuit is reduced by a short-circuiting switch and, during restoration of the supply voltage, an undervoltage detection is suppressed for a short time.
2. A system for performing the methods according to claim 1 for protection of radiation-sensitive active circuit components of an electronic circuit, **characterized in** that the electronic circuit is subdivided into groups of active circuit components with substantially the same current consumption in a predefined area, and at least one of these groups of active circuit components with substantially the same current consumption in a predefined area has a protective circuit (SSG) assigned to it.
3. The system according to claim 2, **characterized in** that the protective circuit comprises a voltage controller (SR) adapted to be switched off and allowing for adjustment of the current limitation, an actuator (SG), a comparator (COMP) for detection of undervoltage, two monoflops ( $MF_Z$  and  $MF_{SK}$ ), a short-circuiting switch (KS) with current limitation and, at the output, at least one capacitor ( $C_{OUT}$ ).
4. The system according to claim 2 or 3, **characterized in** that a unit for current detection is arranged upstream of a unit for voltage control to thereby avoid an influence of the input current on the output voltage.
5. The system according to any one of claims 2 to 4, **characterized in** that, for switching off a plurality or all of the groups of active circuit components having respectively one protective circuit (SSG) assigned

thereto, a signaling line (SIL) and a control line (STL) are provided which connect the protective circuits (SSG) of the groups of active circuit components on the output side and which themselves are connected to a central monoflop ( $MF_z$ ), so that, upon detection of a latch-up in one of the protective circuits (SSG), the central monoflop ( $MF_z$ ) is started via the signaling line (SIL) whereupon, via the control line (STL), all voltage controllers (SR) are switched off and all short-circuiting switches (KS) of the protective circuits (SSG) are activated and, after lapse of a predetermined brief delay, the supply voltage is restored again by monoflops ( $MF_{sk}$ ) respectively provided in a plurality or all groups of active circuit components of an electronic circuit.